

What Is Claimed Is:

1 1.An apparatus for recognizing animal species from an
2 animal voice, comprising;
3 a voice signal collection device for receiving the animal
4 voice and outputting a voice signal ;
5 a feature extraction module for extracting a target
6 parameter from the voice signal;
7 at least one storage device for storing a plurality of
8 sample parameter vectors extracted from a plurality of known
9 animal voices and species data corresponding to the sample
10 parameter vectors;
11 a comparison module for comparing the target parameter
12 vector with the sample parameter vectors to find a matching
13 sample parameter vector similar to the target parameter vector;
14 and
15 at least one output device for displaying the species data
16 corresponding to the matching sample parameter vector.

1 2.The apparatus as claimed in claim 1, wherein a plurality
2 of sample parameter vectors correspond to one of the species
3 data.

1 3.The apparatus as claimed in claim 1, wherein the feature
2 extraction module extracts the target parameter vector
3 according to the rhythm, tune or timbre of the voice signal.

1 4.The apparatus as claimed in claim 1, wherein the target
2 parameter vector and the matching sample parameter vector have
3 a minimum distance therebetween.

1 5.A method for recognizing animal species from an animal
2 voice, the method comprising:

3 converting an animal voice into a target signal;

4 extracting a target parameter vector from the target
5 signal;

6 comparing the target parameter vector with a plurality of
7 sample parameter vectors stored in a parameter database to
8 obtain a matching sample parameter vector which is similar to
9 the target parameter vector; and

10 outputting species data corresponding to the matching
11 sample parameter vector stored in the parameter database if the
12 matching sample parameter vector is found.

1 6.The method as claimed in claim 5, wherein the parameter
2 database is established by the steps comprising:

3 converting a known animal voice into a sample signal;

4 extracting a sample parameter vector from the sample
5 signal;

6 storing the sample parameter vector into the parameter
7 database; and

8 storing species data corresponding to the sample parameter
9 vector into the parameter database.

1 7.The method as claimed in claim 5 and 6, wherein the steps
2 of extracting the target parameter vector and the sample
3 parameter vectors are according to the rhythm, tune or timbre
4 of the target signal and the sample signal respectively.

1 8.The method as claimed in claim 5, wherein a plurality of
2 sample parameter vectors correspond to one of the species data.

1 9.The method as claimed in claim 5, wherein the matching
2 sample parameter vector and the target parameter have a minimum
3 distance therebetween.